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ABSTRACT

A study was conducted to determine the differences between integrated and separated schools in the perception of the learning environment and subjective well being for Spanish children living in Germany. Two hypotheses were tested: (1) there are positive psychological effects for Spanish children in integrated schools; and (2) Spanish students in separated schools do not suffer unfavorable comparisons and therefore benefit from positive psychological effects. These two predictions emerge from environmental press theory and the reference group theory. A sample of 280 students (ages 10 to 15) responded to a questionnaire measuring various psychosocial effects of schooling including pressure to achieve. The findings of the study support the environmental press theory. Segregated Spanish students perceive more academic pressure, are more test anxious, and less confident than desegregated students. Desegregation seems to be adequate in providing foreign students with stimulating learning environments. (Author/APM)

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Psychosocial Effects of Desegregation in Germany

by Ralf Schwarzer
and Christine Schwarzer

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UD021503

JUN 1 1981

Ralf Schwarzer & Christine Schwarzer

PSYCHOSOCIAL EFFECTS OF DESEGREGATION IN GERMANY[1]

Introduction

Migration in Europe has caused severe problems of schooling. In West Germany there are four million foreigners who mostly are guest workers. Their 600,000 children are obliged to attend school. Different models of schooling are provided because of the different policies of some West German states. The question is if desegregation is more favorable than segregation with respect to different educational and social goals. With the goal of social integration in mind desegregation would be the most adequate strategy whereas segregation could be more useful in the case of re-integration. The official policy of West Germany is to be not an immigration country but a guest country. Guest workers are recommended to stay only for a certain time and to return to their home country. Therefore their children should preserve their mother tongue and their cultural habits. However, the real situation is in contrast to the official policy. Guest workers want to stay forever and they are acculturated more and more. The so-called second generation is born in West Germany and never has in mind to return to the home country of their parents. In this situation the way of schooling has become an important issue. Integrated and separated schools for foreign children were established but their impact is not sufficiently evaluated.

Our investigation focusses on the school environment and the psychosocial outcomes of these two kinds of schooling. If the guest country feels responsible for the education of the guest workers' children both schools should provide the same quality of instruction and only differ in the structural organisation. Our research question was: Are there differences between integrated and separated schools in the perception of the learning

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[1] Paper presented at the AEFA Annual Convention in Los Angeles 1981

environment and the subjective well-being?
There were two controversial predictions. Assuming that the integration of Spanish children into German schools leads to more intellectual stimulation and a higher level of education in general there should be positive psychological effects in comparison to the national schools where Spanish children are educated in isolation and by less advanced instructional methods. On the other hand we predicted the opposite direction of effects with respect to reference group theory. Spanish students within integrated German schools are socially isolated and low achievers. They are "small fishes in a big pond". Spanish students in separated national schools are together with Spanish peers. Therefore they should not suffer from unfavorable social comparisons. The two controversial predictions can be abbreviated by calling them "environmental press theory vs. reference group theory".

Sample and Method

A sample of 280 Spanish students was available. They attended integrated or segregated classes. The age level ranged from 10 to 15 on the average. Table 1 displays the distribution of subjects across grade levels and across the types of schooling. 52% of the subjects are female. 72% live in Germany since 6 or more years.

Table 1: Sample and subsamples within the design of the study

Type of Schooling	Grade Level						
	4	5	6	7	8	9	Sum
Integration	31	18	16	19	20	16	120
Segregation	36	26	27	28	23	20	160
Sum	67	44	43	47	43	36	280

In winter 1980 we administrated to them a questionnaire which consisted of several scales measuring aspects of subjective well-being and psychosocial sets. As a central measure of learning environment perception the achievement pressure was chosen. The other psychosocial effects were assessed with respect to self-esteem, helplessness, test anxiety, and school dissatisfaction. The internal consistencies of these scales turned out to be satisfying.

Results

Data analysis first focussed on mean differences between the two ways of schooling.[2]
For all five variables there was a significant difference favoring the integrated classes. Then, multivariate analysis of variance (MANOVA) was applied to the data using type of schooling, grade level and sex as factors while the five psychosocial variables were used simultaneously as criterions. A strong main effect for type of schooling was found but no other effects. For illustration purposes and in order to generate more sophisticated hypotheses each criterion is analysed and displayed in the following section neglecting the sex of the subjects.

Achievement pressure. Table 2 and figure 1 show that there is a main effect for type of schooling. Children of Spanish migrants perceive less achievement pressure when attending a German school together with German students whereas those who attend a national school perceive more achievement pressure.

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[2] The data were analysed using SPSS at the computer center of the University of Aachen (RWTH).

Table 2: Two-way analysis of variance for the criterion "achievement pressure"

Source	SS	df	MS	F	p	Eta^2
Type of schooling	96.70	1	96.70	21.38	.00	.07
Grade level	41.51	5	8.30	1.84	.11	
Interaction	40.56	5	8.11	1.79	.11	
Within	1212.30	268	4.52			
Total	1391.07	279				

/ Insert figure 1 here /

Test Anxiety. Table 3 and figure 2 show that there is a main effect for type of schooling. The guest workers' children are more test anxious if they attend national classes than if they attend integrated classes.

Table 3: Two-way analysis of variance "test anxiety"

Source	SS	df	MS	F	p	Eta^2
Type of schooling	325.94	1	325.94	24.61	.00	.08
Grade level	107.63	5	21.53	1.63	.15	
Interaction	86.46	5	17.29	1.31	.26	
Within	3470.02	262	13.24			
Total	3990.05	273				

/ Insert figure 2 here /

Self Esteem. Table 4 and figure 3 display the results for the criterion self esteem. There is a main effect and an interaction. Type of schooling explains 22% of the criterion variance. That is, the variance of self esteem would be reduced by 22% if there were no structural differences in the schooling policy. The pointbiserial correlation between self esteem and type of schooling is r = -.47. This is the highest effect size which was found in our study.
Even more important in this finding is the distribution of means across the 12 cells of the design. In grade 4 there is no difference between both kinds of schooling but beginning with grade 5 the differences become more and more significant. This interaction between grade level and type of schooling can be seen as a scissor effect indicating the impact of different learning conditions. There seems to be a differential development of self esteem dependent on school environmental configurations. Of course, this cannot be proved by a cross-sectional study. A more sophisticated longitudinal study is demanded.

Table 4: Two-way analysis of variance for the criterion "self esteem"

Source	SS	df	MS	F	p	Eta^2
Type of schooling	481.96	1	481.96	81.14	.00	.22
Grade level	22.78	5	4.56	.77	.57	
Interaction	134.45	5	26.89	4.53	.00	.06
Within	1586.04	267	5.94			
Total	2225.23	278				

/ Insert figure 3 here /

Helplessness. Helplessness is measured by a scale that was constructed by ourselves. It consists of items focussing on loss of control and perceived lack of contingency between effort and outcomes in school. Table 5 and figure 4 show the interaction between grade level and type of schooling as well as the two main effects. In grade 4 there are no differences whereas in all other grade levels the helplessness means are significantly different between the segregated and the integrated classes possibly indicating a differential development of helplessness.

Self esteem and helplessness are based on highly self-related cognitions. The similarity of the findings may be interpreted as referring to the differential acquisition of self-efficacy dependent on academic socialization.

Table 5: Two-way analysis of variance for the criterion "helplessness"

Source	SS	df	MS	F	p	Eta^2
Type of schooling	136.41	1	136.41	24.00	.00	.076
Grade level	77.99	5	15.60	2.74	.02	.04
Interaction	64.57	5	12.91	2.27	.05	.04
Within	1523.00	268	5.68			
Total	1801.96	279				

/ Insert figure 4 here /

School Dissatisfaction Table 6 and figure 5 show the results for school dissatisfaction. There is an interaction and a weak main effect. Single comparisons resulted in no differences in grade levels 4 and 8. Therefore this interaction cannot be used for indicating a differential development.

Table 6: Two-way analysis of variance for the criterion "school dissatisfaction"

Source	SS	df	MS	F	p	Eta^2
Type of schooling	35.01	1	35.01	7.14	.01	.02
Grade level	36.79	5	7.36	1.50	.19	
Interaction	75.32	5	15.06	3.07	.01	.05
Within	1313.49	268	4.90			
Total	1460.62	279				

/ Insert figure 5 here /

Discussion

In all analyses the main factor was significant and sometimes was joined by an interaction with grade level. The integrated schools turned out to yield more positive mean scores in all variables. Spanish students within segregated classes perceive more achievement pressure, and they are more test anxious and more helpless, less self-confident and less satisfied with school. They also display more self-confidence and more hope for success. Therefore the environmental press theory received support from our data. This is especially true if we inspect the mean scores for each grade level separately. At the fourth grade there are no significant differences between the two kinds of schooling whereas at higher grades the means are more

different in favor to the integrated children. This indicates a development of environment perception and well-being in dependence on the kind of schooling. It must be mentioned, however, that this result suffers from small and unequal cell frequencies.

In summary, the findings do not support reference group theory but environmental press theory. Desegregation seems to be adequate in providing foreign students with stimulating learning environments. Unfortunately we had no data on achievement but from a theoretical viewpoint there should be a positive relationship between self-concept of ability, test anxiety and achievement. Therefore it may be concluded that the achievement level of integrated students is also higher. There are some reasons for the different environmental stimulations. German schools have better teachers, better learning materials and a higher standard of performance than the national schools. In addition they have a higher prestige and they develop strong beliefs in the value and impact of education which may have an influence on the psychosocial situation of integrated children.

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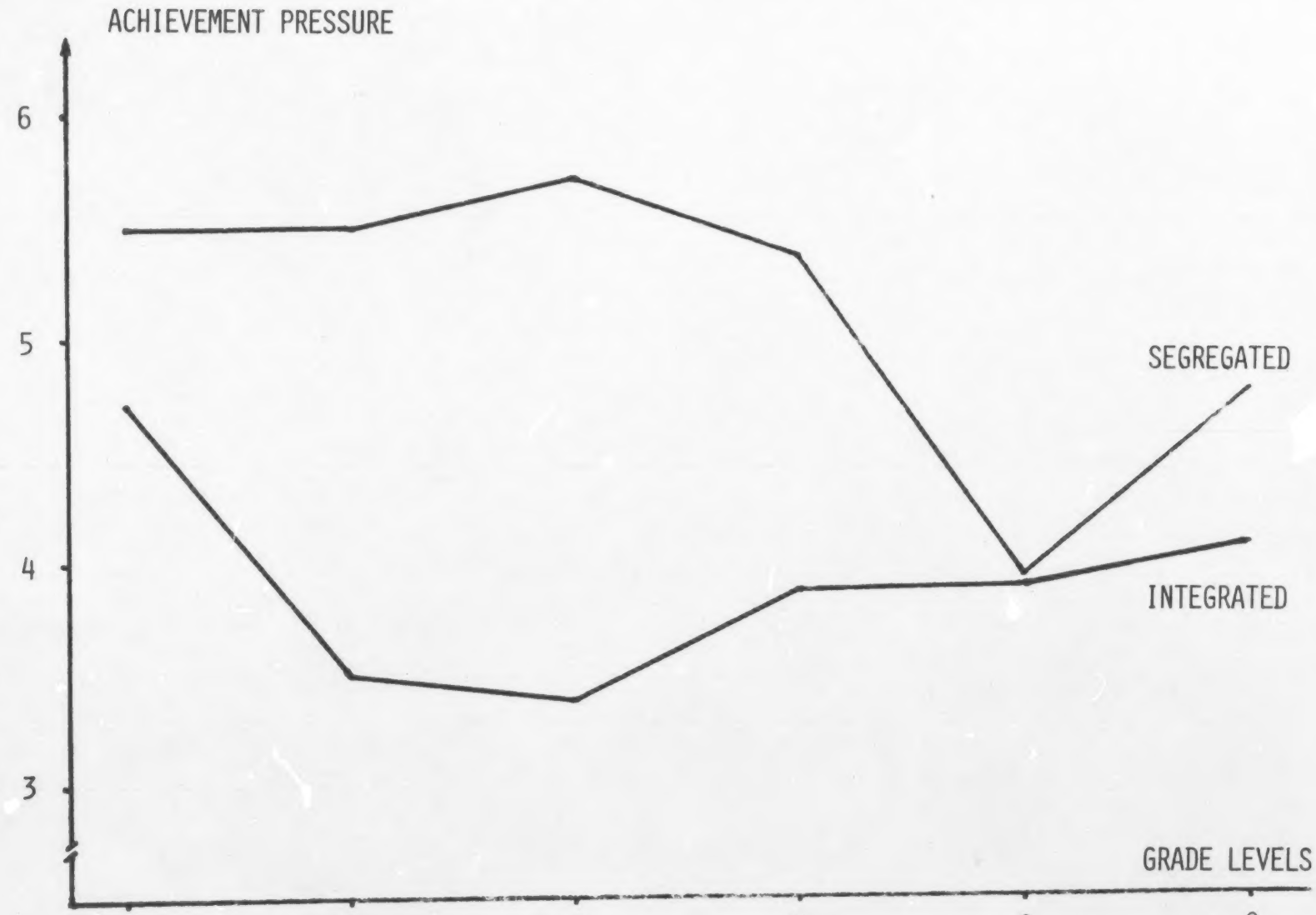
ACHIEVEMENT PRESSURE
6
5
4
3
SEGREGATED
INTEGRATED
GRADE LEVELS
4
5
6
7
8
9

FIGURE 1

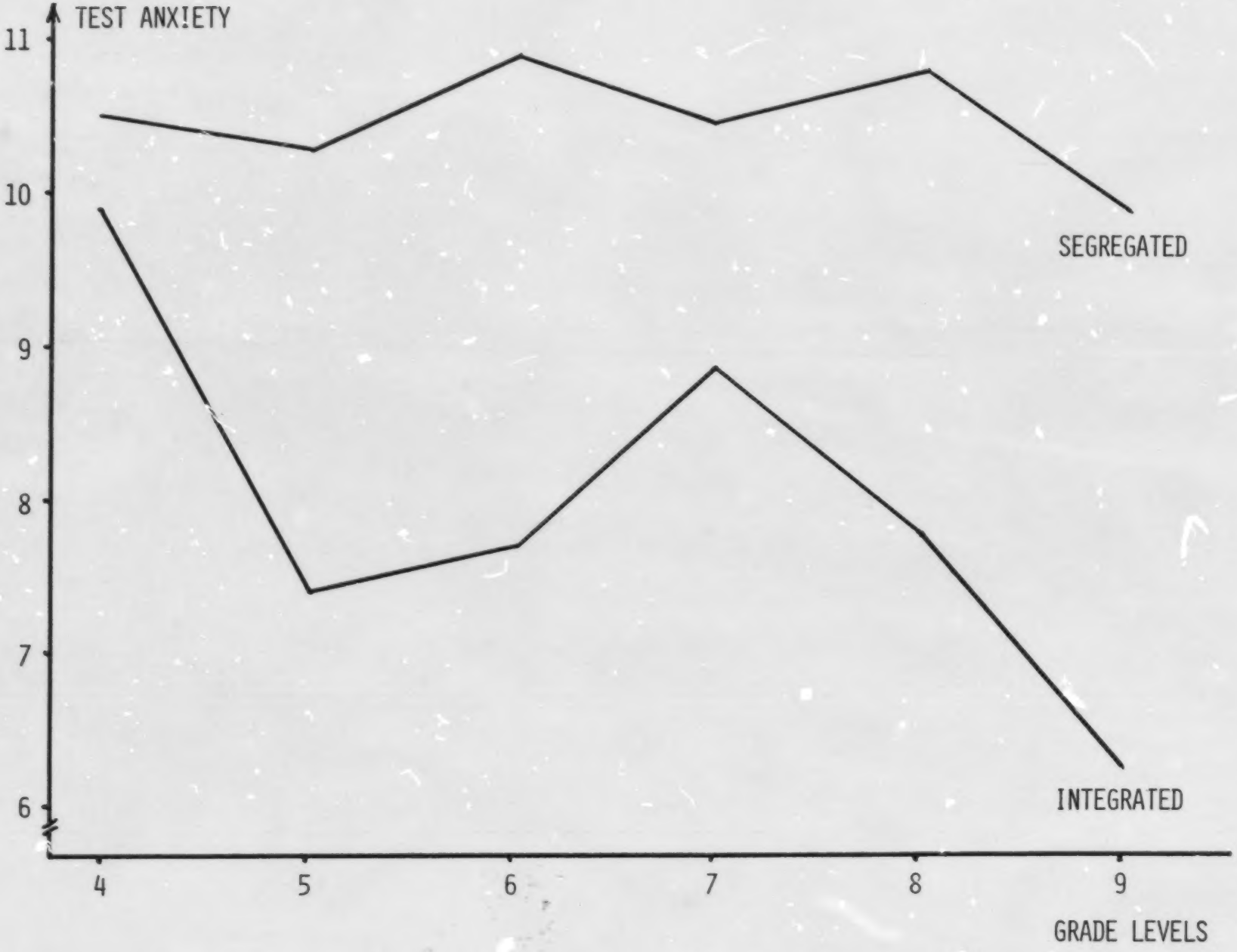
TEST ANXIETY
11
10
9
8
7
6
SEGREGATED
INTEGRATED
4
5
6
7
8
9
GRADE LEVELS

FIGURE 2

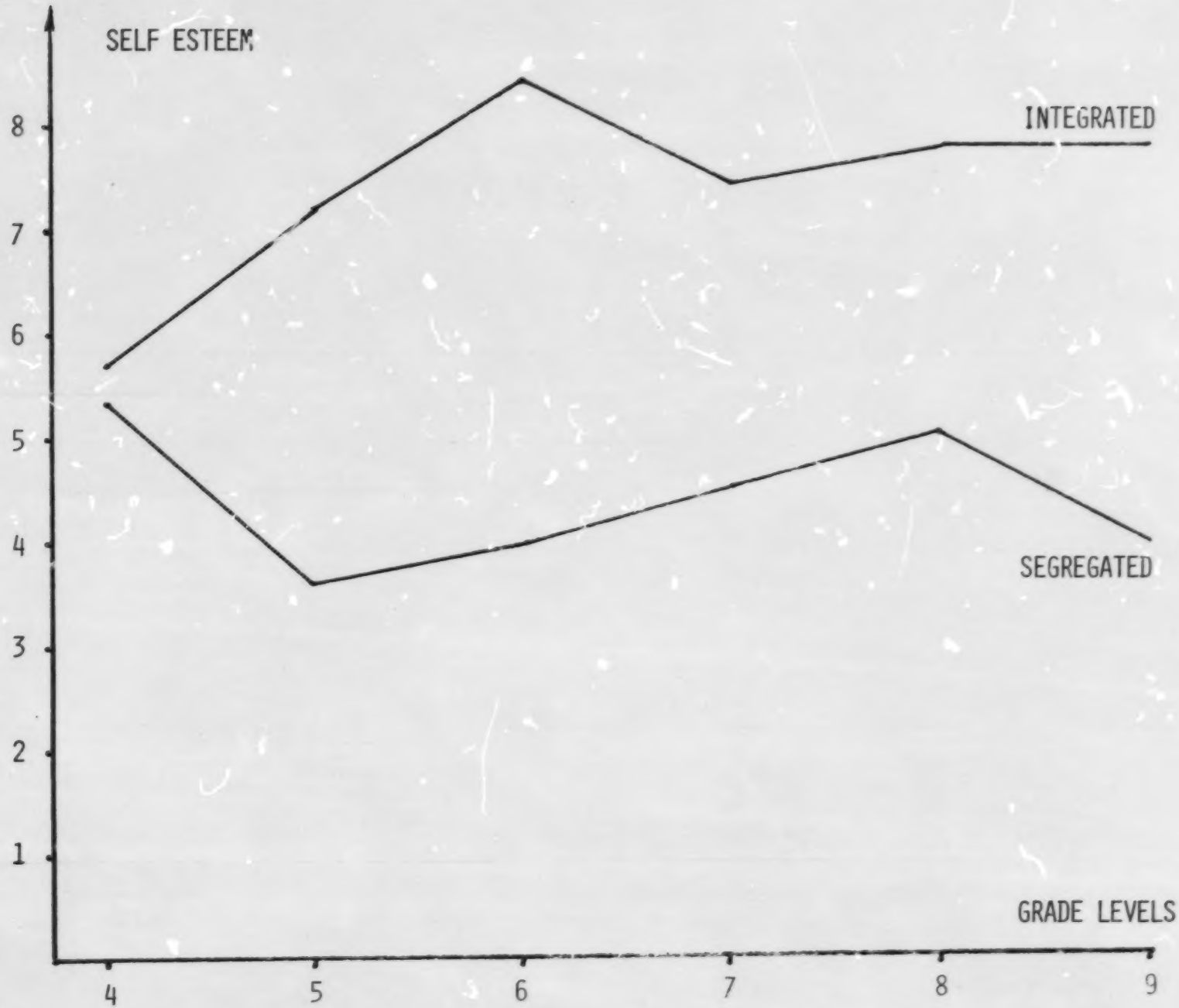
SELF ESTEEM
8
7
6
5
4
3
2
1
INTEGRATED
SEGREGATED
GRADE LEVELS
4
5
6
7
8
9

FIGURE 3

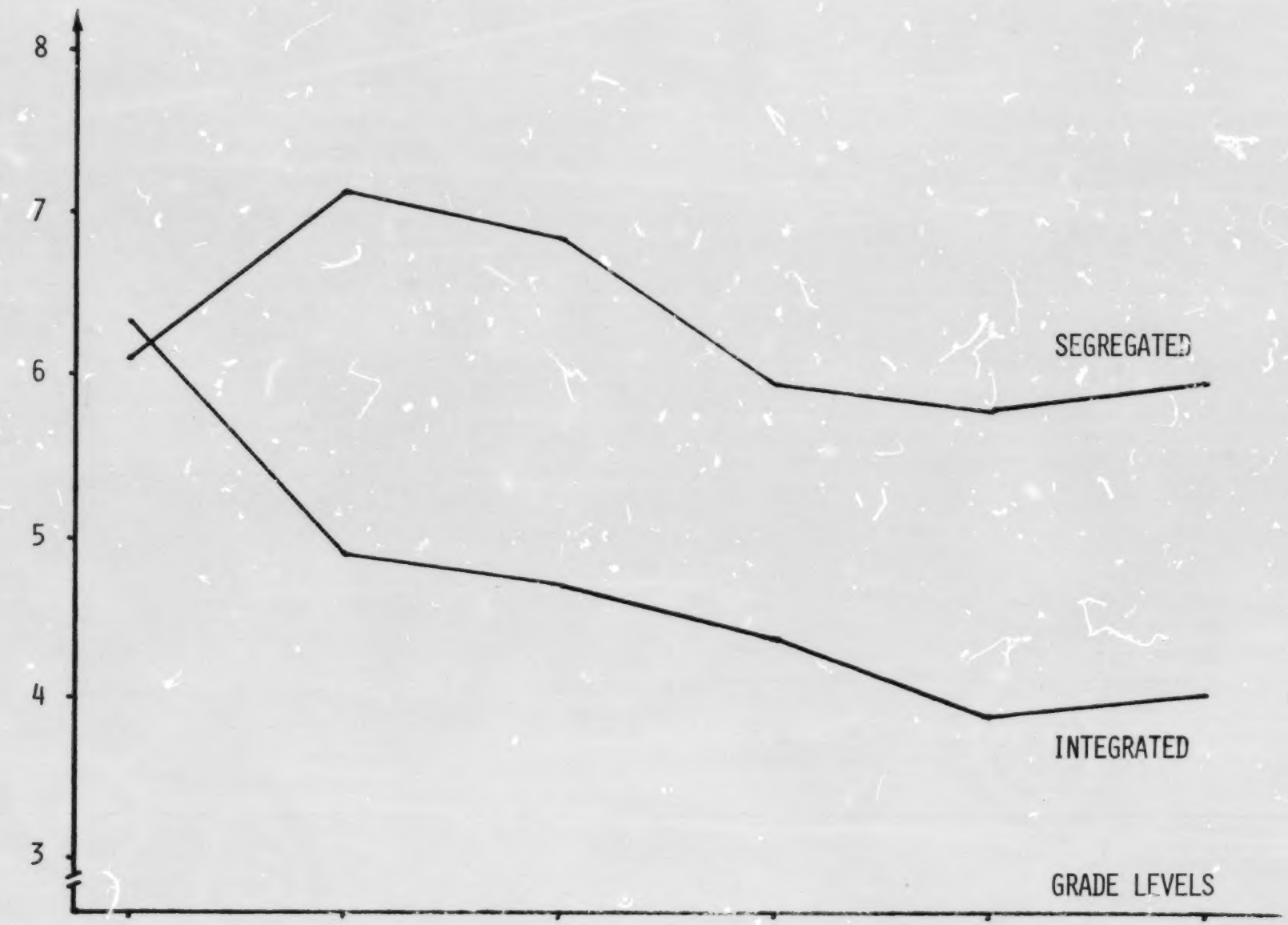
HELPLESSNESS
8
7
6
5
4
3
SEGREGATED
INTEGRATED
GRADE LEVELS
4
5
6
7
8
9

FIGURE 4

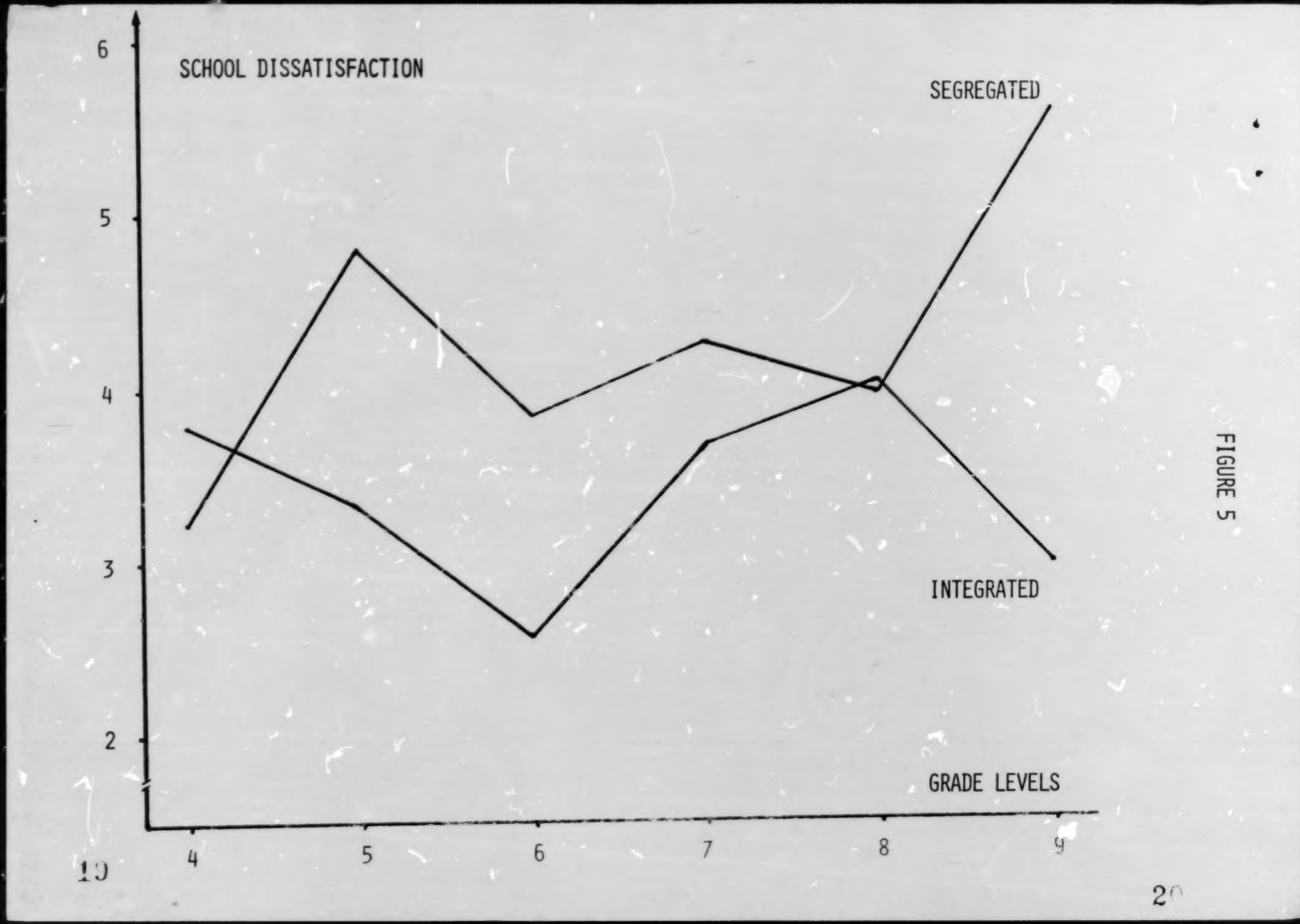
SCHOOL DISSATISFACTION
6
5
4
3
2
SEGREGATED
INTEGRATED
GRADE LEVELS
4
5
6
7
8
9

FIGURE 5